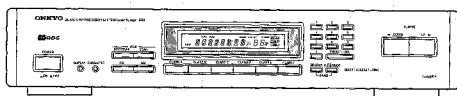


T-430RDS

Quartz Synthesized FM Stereo/AM Tuner

Instruction Manual



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Thank you for your purchase of the Onkyo T-430RDS Tuner.

Please read this manual thoroughly before making connections and turning power on.

Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new T-430RDS.

Please retain this manual for future reference.

Features

■ RDS (Radio Data System PTY, TP, RT, PS, AF)

RDS enhances FM listening enjoyment by providing useful station and programming data. Included are Program Type (PTY: searches for and displays listening categories), Traffic Program (TP: searches for stations broadcasting traffic information), Radio Text (RT: gives additional information such as upcoming songs), Program Service (PS: displays stations' call letters), and Alternative Frequency (AF: lists the stations carrying the same program and selects the strongest frequency from this list).

■ MOS-FET RF Section and Front-End Design

Onkyo's MOS-FET RF section and front-end design greatly reduce intermodulation. They also enhance signal receivability, and provide noise-free stereo.

■ 30-Station FM/AM Random Preset Tuning

This feature lets users assign a number, in any order, to each favorite FM or AM station, then access it simply at the touch of a button - which is especially convenient if there are a lot of radio stations in the area.

■ Six-Group Classified Memory System with Scan

Users can group stations into six separate categories - rock, jazz, or news, for example - or any other label, such as a family member's name, and scan the groups at the touch of a button. The label will appear on the display, along with the broadcast frequency, to make station choices easier.

■ Direct Access Tuning

By entering a station's frequency directly into the feathertouch keypad, users can gain instant access to their desired AM or FM stations.

■ Smart auto tuning (at the touch of a button, scans and memorizes for instant recall the frequencies of the twenty strongest receivable FM stations)

■ Large, easy-to-see FL display

■ Selectable character-display input

■ Battery-free memory backup

■ Built-in AM loop antenna

■ Large, vibration-absorbing feet with tri-point configuration

■ R1 (Remote interactive) control system compatible

FOR EUROPEAN MODEL

- This apparatus complies with requirements of EC directive 87/308/EEC.

FOR CANADIAN MODEL: (POUR LE MODELE CANADIEN)

- For models having a power cord with a polarized plug. **CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.**

- Sur les modèles dont la fiche est polarisée.

ATTENTION: POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Memory Preservation

This unit does not require memory preservation batteries. A built-in memory power back-up system preserves the contents of the memory during power failures and even when the unit is unplugged. The unit

must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory, the power switch must be turned on and off a few times each month to keep the back-up system operative.

The memory preservation period after power has been turned off varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of a few weeks after the last time power has been turned off. This period is shorter when the unit is exposed to a highly humid climate.

"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

CAUTION:

"TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



- The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Important safeguards

1. **Read Instructions** – All the safety and operating instructions should be read before the appliance is operated.
 2. **Retain Instructions** – The safety and operating instructions should be retained for future reference.
 3. **Heed Warnings** – All warnings on the appliance and in the operating instructions should be adhered to.
 4. **Follow Instructions** – All operating and use instructions should be followed.
 5. **Water and Moisture** – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
 6. **Carts and Stands** – The appliance should be used only with a cart or stand that is recommended by the manufacturer.
- 6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

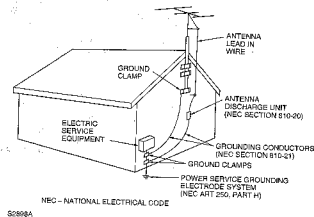
PORTABLE CART WARNING

S3125A



19. **Outdoor Antenna Grounding** – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of the antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure 73.1.

**FIGURE 73.1:
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL
ELECTRICAL CODE**



Precautions

1. Warranty Card

The serial number is written on the rear panel of this unit. Copy the serial number and model number onto your warranty card and keep it in a safe place.

2. Care

From time to time you should wipe the front and rear panels and the cabinet with a soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe off the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these could damage the finish or remove the panel lettering.

3. Power

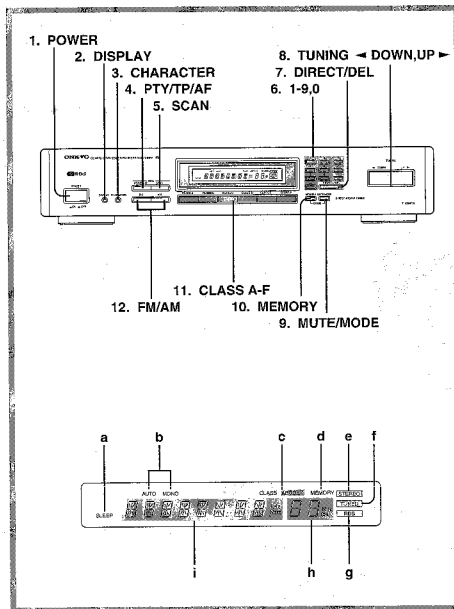
WARNING

BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.

European model (except U.K.):	AC 230V, 50Hz
U.K. and Australian models:	AC 240V, 50Hz
U.S.A. and Canadian models:	AC 120V, 60Hz
Worldwide model:	AC 120V/220V switchable, 50/60Hz
- **Voltage Selector (Rear Panel)**
Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before turning the power button on. (See "Setting the voltage selector and tuning step frequency (Worldwide models only)", P. 4.) Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.

Control positions and names



NOTE:

If there is a protective film on the surface of the display, which is making it difficult to read the display, remove it.

For more information about buttons, turn to the page number in the brackets ([]).

Front panel

1. Power button [6]
2. Display button [13, 15]
3. Character button [11]
4. RDS button [13, 15]
5. Scan button [13, 15]
6. Number buttons [8]
7. Direct/del button [8]
8. Tuning up/down buttons [7]
9. FM mute/mode button [8, 10]
10. Memory button [9, 11]
11. Classified memory buttons [9, 10]
12. Band selector buttons [7, 9]

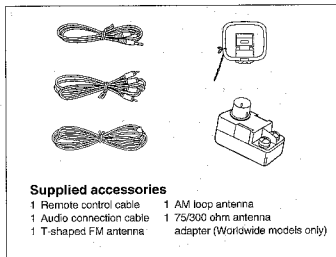
The Display

- a. Sleep indicator
- b. Stereo auto/mono indicator
- c. Preset station indicator
- d. Memory indicator
- e. Stereo indicator
- f. Tuned indicator
- g. RDS station received indicator
- h. Memory channel / Sleep time display
- i. Multi display

SLEEP indicator

The T-430RDS does not have a sleep function.

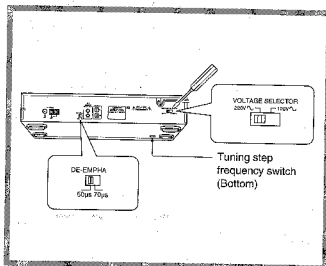
However, if the T-430RDS is connected to an amplifier with the **RI** mark, and the **SLEEP** button on the remote control is pressed, the **SLEEP** indicator on the T-430RDS will light up. When the **SLEEP** button is pressed again, the indicator will turn off.



Supplied accessories

- | | |
|--------------------------|--|
| 1 Remote control cable | 1 AM loop antenna |
| 1 Audio connection cable | 1 75/300 ohm antenna adapter (Worldwide models only) |
| 1 T-shaped FM antenna | |

Setting the voltage selector and tuning step frequency (Worldwide models only)



Voltage selector

1. Determine the proper voltage for your area: 220V or 120V.
2. If the preset voltage is not correct for your area, insert a screwdriver into the groove in the switch. Slide the switch all the way to the right (120V) or to the left (220V), whichever is appropriate.

Tuning step frequency

Worldwide models are equipped with a switch that controls the AM (9kHz/10kHz) and FM (50kHz/200kHz) bands tuning steps.

Please set this switch to match the tuning step frequency in your area.

U.S.A. : AM 10kHz, FM 200kHz

Other areas : AM 9kHz, FM 50kHz

De-Emphasis selector

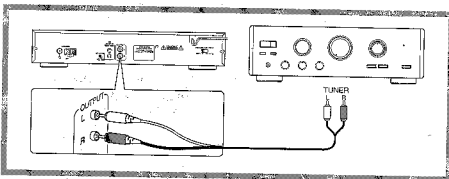
Worldwide models are equipped with a switch that controls de-emphasis (50 µsec - 75 µsec). Please set this switch to match the de-emphasis in your area.

U.S.A. and Canada 75 µsec

Other areas 50 µsec

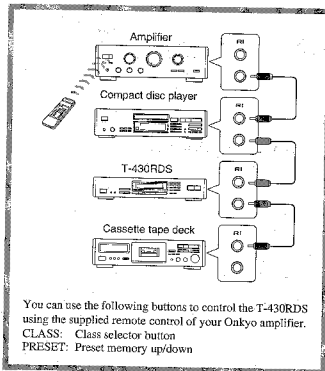
Making system connections

- Do not plug in the power cord until all connections have been made.
- The lower jack (marked R) corresponds to the right channel, and the upper jack (marked L) to the left channel.



Connecting the amplifier

Connect the tuner's OUTPUT jacks and the amplifier's INPUT jacks using the audio connection cable. Refer to the amplifier's instruction manual for connections.



You can use the following buttons to control the T-430RDS using the supplied remote control of your Onkyo amplifier.
CLASS: Class selector button
PRESET: Preset memory up/down

Connecting Onkyo components for R1 operation

When the T-430RDS is connected to an amplifier with the Onkyo **R1** mark, you are able to operate it by pressing the TUNER buttons on the amplifier's supplied remote control.

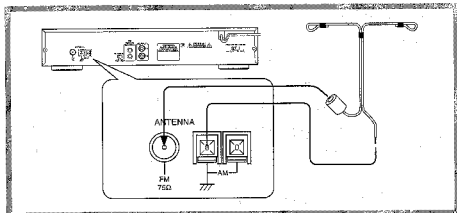
When connecting Onkyo products, it is necessary to attach the **R1** cable to be able to use the remote control of the amplifier to control the entire system.

1. To use this tuner with an amplifier, cassette tape deck and compact disc player with the **R1** mark, insert the remote control cable plugs into the REMOTE CONTROL jacks as shown.
2. As the exact connection sequence of the **R1** cable is unimportant, you can connect from the amplifier to either the tuner, the cassette tape deck or to the compact disc player.
3. To operate correctly, the remote control must face towards the remote control sensor of the amplifier.

NOTE:

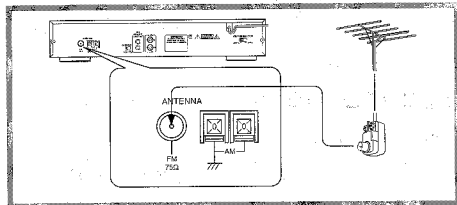
- The upper and lower **R1** remote control jacks have the same function.
- Remote control operation is not possible when only the remote control cable is connected — the audio connection cables must also be connected.
- An **R1** remote control cable equipped with a 1/8" (3.5mm) diameter miniature two-conductor phone plug is included with the T-430RDS and with every compact disc player and tuner with the **R1** mark.

Making antenna connections



Connecting the T-shaped FM antenna

The T-shaped FM antenna is for indoor use only. Move the antenna in various directions until the clearest signal is received. Fix it with push pins in the position giving the least amount of distortion.



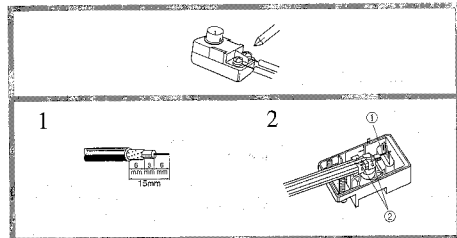
Connecting an FM outdoor antenna

If the reception is not very clear with the attached T-shaped FM antenna, the use of an external antenna is recommended.

Please make sure that you comply with the following considerations regarding the location.

Keep the antenna away from noise sources (neon signs, busy roads etc.)

It is dangerous to put it close to power lines, so keep it well away.



Connecting a 75/300 ohm antenna adapter (worldwide models)

Please refer to the following procedure when connecting a 75/300 ohm antenna adapter. (This adapter is included if your T-430RDS is a worldwide model.)

Connecting the coaxial cable:

1. Prepare the coaxial cable as shown.
2. Using your fingernail or a small screwdriver, remove the cover.

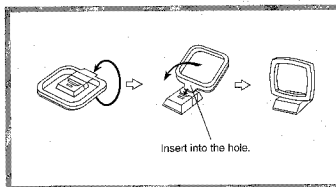
Connect the 75/300 ohm antenna adapter to the coaxial cable and replace the cover.

① Insert the end of the cable.

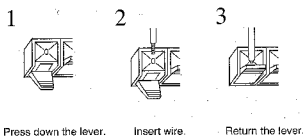
② Clamp in place with pliers.

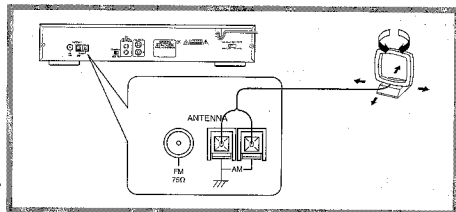
Assembling the AM loop antenna

Assemble the loop antenna as shown in the illustration.



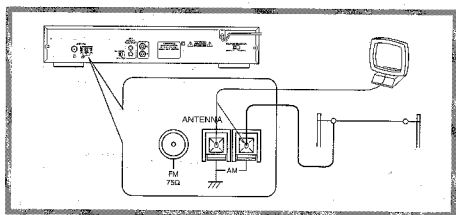
Connecting the antenna cable





Connecting the AM loop antenna

The AM loop antenna is for indoor use only. Set it to the direction where you can receive the clearest sound. Put it as far as possible away from the main unit, TV sets, speaker cords and power cords.



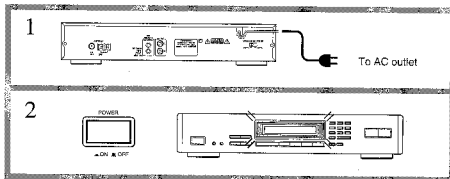
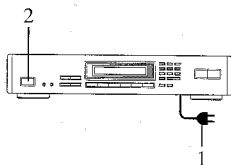
Connecting the AM outdoor antenna

When reception is not satisfactory by the use of the attached AM loop antenna alone, connection of the external antenna is recommended.

(Do not remove the AM loop antenna)

The external antenna will be more effective if you stretch it horizontally in a high place above a window or outside.

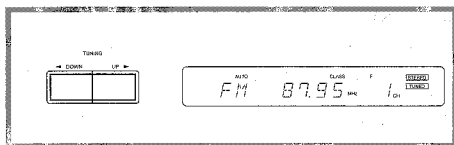
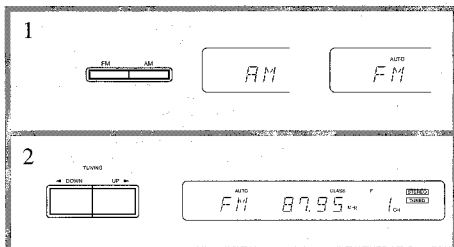
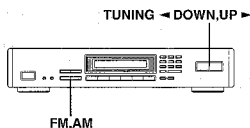
Connecting the power



Connecting the power

1. Insert the AC power supply cord into the wall outlet.
2. Press the POWER button. The display will light up.

Receiving stations



Auto tuning

1. Select FM or AM using the **BAND SELECTOR** button.
2. Hold down the **UP** ► (or **DOWN**) button for a few seconds.
The frequency will automatically begin to increase (or decrease) until a station is found.

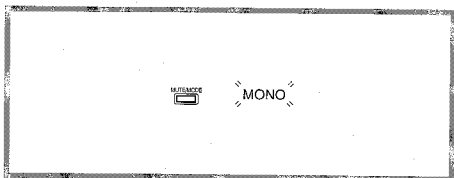
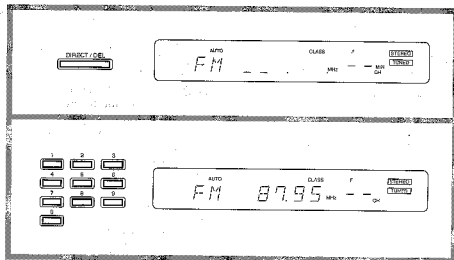
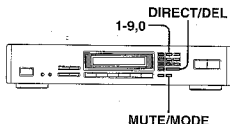
Receiving an FM station

The PS (the name of the station) is shown on the display when in RDS mode (see RDS on page 12 and 14). If you wish to see the frequency display instead, press the **DISPLAY** button.

Manual tuning

Each time you press the **UP** ► (or **DOWN**) button, the frequency increase (or decrease) by one tuning step. Repeat until you find a frequency or station that you like.

- When receiving an FM station, follow the procedures for the RDS.



Direct tuning

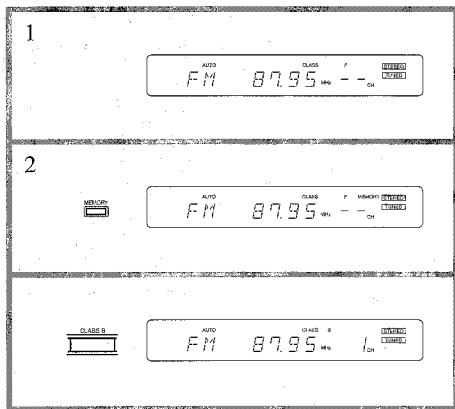
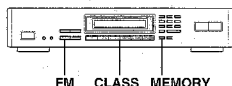
1. Press the **DIRECT/DEL** button.
 2. Enter the frequency with the number buttons (the numbers will flash on the display).
- If you enter a frequency that is out of range, the T-430RDS will return to the previous frequency. If this happens, repeat the procedure.
 - If you enter a frequency that does not have a station, the T-430RDS will automatically tune to the next station immediately below that frequency.
 - When receiving an FM station, follow the procedures for the RDS functions previously described.
Place the AM loop antenna or T-shaped FM antenna on a wall or other surface in the position which gives the best reception.

Listening to a stereo radio station

If you tune in a stereo FM station, the **STEREO** display will be illuminated if the signal is sufficiently strong. If the signal is weak, it may be impossible to tune into your desired station. In this case, tune in as follows.

1. Press the **MUTE/MODE** button and the **MONO** display lights.
2. Select the station you would like to listen to using manual tuning mode.

Using preset stations

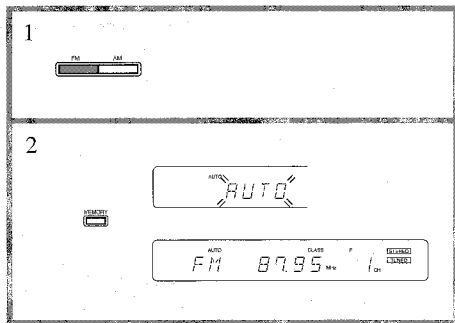


Programming radio stations

1. Select the frequency that you want to store in the memory.
(See Receiving Stations on page 7 and 8.)
2. Press the MEMORY button, and the MEMORY indicator will flash.
While it is flashing, press the button of the class (A-F) that you want the frequency memorized in.

NOTES:

- AM stations can be stored in the memory using the same procedure.
- Up to 30 FM and AM stations can be stored in the preset memory in total.
- If the FM station received is an RDS station with a PS (Program Service Name), the frequency display will change to the PS display.
If there is no PS, the frequency display will not change. (Refer to page 12 and 14 for the RDS function.)



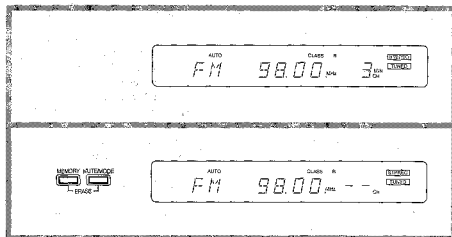
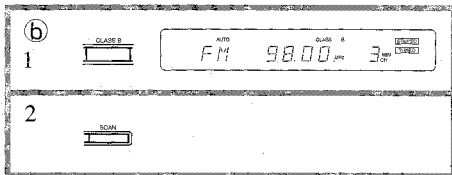
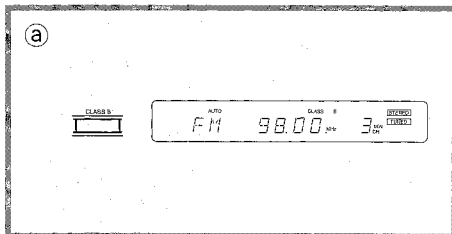
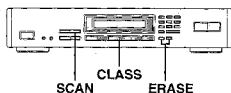
Using Auto Memory (FM mode only)

This function allows you to store the frequencies into memory automatically, without having to go through and store each frequency manually. If the Auto Memory is used, all stations previously stored in memory will be erased.

1. Use the BAND button to select FM.
2. Hold down the memory button for a few seconds. "AUTO" will start flashing on the display. Keep holding down the button for a few more seconds to start the Auto Memory function.

The frequencies are scanned from low frequencies to high frequencies, and the broadcast signals with the best signal quality are selected, and stored into class F. The stations will be stored from the lowest to the highest frequency.

Up to 20 stations can be stored in total.



Recalling preset stations

⑤ Press the button of the class (A-F) that the desired station is in.
Each time the button is pressed, the preset stations in that class will be stepped through.

⑥ 1. Press the button of the class (A-F) that the desired station is in.

2. Press the SCAN button.

Each of the preset stations within the selected class will be tuned in for 5 seconds, in turn.

When the desired station is reached, or you want to stop scanning, press the SCAN button a second time.

The Tuner will automatically switch to AM or FM according to the station selected.

Cancelling preset stations

1. Select the preset station as explained in the previous section.

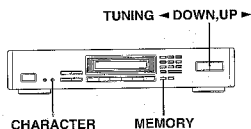
2. Press and hold the MEMORY button and within a second of doing this, press the MUTE/MODE button.

"--" will be shown on the MEMORY channel display.

3. Once the preset station has been cancelled, the memory location can be used to store another station.

Note that if you fail to press the MUTE/MODE button while holding down the MEMORY button, the AUTO MEMORY will start.

Entering station names



The following 54 characters can be used.

	A	B	C	D	E	F	G	H
I	J	K	L	M	N	O	P	Q
R	S	T	U	V	W	X	Y	Z
"	'	(	)	*	+	=	-	.
1	2	3	4	5	6	7	8	9

Entering new characters

If the station you are currently listening to on the T-430RDS is an RDS station, the program service name has priority over other information. Therefore you will not be able to enter characters for the station name.

1. Select the station you wish to name (see previous sections).
2. Press the CHARACTER button to enter character input mode.
3. Press the TUNING UP/DOWN buttons to select a character.
4. Press the MEMORY button to store the character.

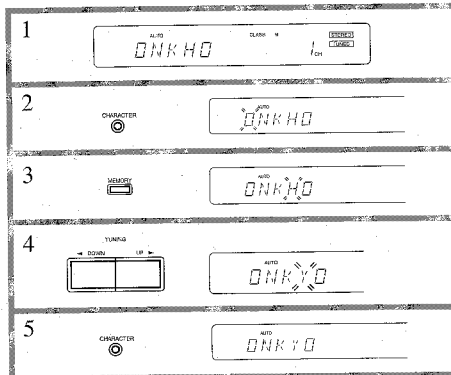
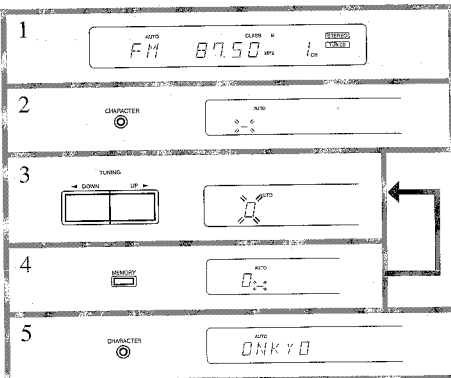
Repeat the procedures 3 and 4 to store more characters. You can store up to 8 characters in all.

When you want to leave a space between characters, press the memory button. The bar moves on to the next position.

5. Press the CHARACTER button once again to complete the operation.

NOTE:

If you have not pressed a button for 16 seconds, the operation will complete automatically.



Changing existing characters

1. Select the station you wish to make changes to (see previous sections).
2. Press the CHARACTER button to enter character input mode.
3. Press the MEMORY button until the character which you want to change is selected.
4. Press the TUNING UP/DOWN buttons to select a character.
To delete the current character, press the DIRECT/DEL button. The cursor will move one character to the left.
5. Press the MEMORY button to store the character.

Clearing all of the characters stored in memory

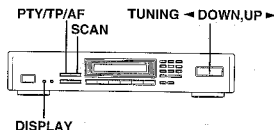
1. Press the CHARACTER button.
2. Hold down the MEMORY button then press the MUTE/MODE button.

Receiving RDS

RDS reception is only available in areas where RDS broadcasts are available. However, if radio reception is weak, RDS may not be received.

What is RDS?

Many FM stations now transmit RDS signals which give additional information. RDS provides you with various services so that (for example) you can choose a station broadcasting your favorite categories of music, or other information. The information on the right side is available on this unit.



PS: Program Service Name

When an RDS station broadcasting PS information is received, the name of the station will be displayed instead of the frequency.

PTY: Program Type

When an RDS station broadcasting PTY information is received, the type (category) of the broadcast will be displayed.

TP: Traffic Program

When an RDS station broadcasting TP information is received, the traffic information will be displayed.

AF: Alternative Frequency list

When a station broadcasting AF information is received, a frequency list of the stations servicing the same program in the surrounding is provided. From this list, the tuner can automatically search for the strongest frequency for a given station.

RT: Radio Text

When an RDS station broadcasting RT information is received, the information received from the station will be shown on the tuner's display.

NOTE:

In some cases, the characters displayed on the screen of the T-430RDS may not be exactly the same as the ones broadcast by the radio station. The T-430RDS cannot display lower case letters, and will change them to upper case. If strange characters appear in the display, it is because characters are being received that cannot be correctly displayed by the T-430RDS. They do not indicate a malfunction of the unit.

PTY Classifications in Europe

1	NEWS	News reports	Reports on current events and happenings.
2	AFFAIRS	Current affairs	Topical reporting of current affairs, often with a wider range of topics than news reports.
3	INFO	Information	General information such as weather forecasts, consumer affairs, medical help etc.
4	SPORT	Sport	Live sports action, sports news and interviews.
5	EDUCATE	Education	Formal educational programs.
6	DRAMA	Drama	Radio plays and serials
7	CULTURE	Culture	Cultural programs (including religious affairs)
8	SCIENCE	Science and technology	Programs about the natural sciences and technology.
9	VARIED	Varied	Speech based programs not covered by the above categories eg. quizzes, panel games, comedy, etc.
10	POP M	Pop music	Popular commercial music, usually included in past or present sales charts.
11	ROCK M	Rock music	Popular music with a more specialist appeal, often not included in sales charts.
12	M.O.R M	Middle of the road music	Easy listening music as opposed to Pop, Rock or Classical.
13	LIGHT M	Light classics	Classical music for general rather than specialist appreciation.
14	CLASSICS	Serious classics	Performances of major orchestral works, symphonies, chamber music etc. and including Grand Opera.
15	OTHER M	Other music	Music styles not covered by the above categories, eg. Jazz, Rhythm & Blues, Folk, Country, Reggae.

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